

Luca De Nardis

Curriculum vitae

Work Address: Room 209, DIET Department, Via Eudossiana 18, 00184 Rome, Italy

Phone: +390644585479

Fax: +390644585632

Email: luca.denardis@uniroma1.it



Occupation

- Since December 2008: Assistant professor at the DIET Department, School of Engineering, University of Rome La Sapienza, Rome, Italy.
- In the period November 2004 – October 2008: research affiliate at the INFOCOM Department, School of Engineering, University of Rome La Sapienza, Rome, Italy.
- In the period July 2006 – May 2007: Post-doctoral fellow at the Berkeley Wireless Research Center, University of California, Berkeley.
- In the period December 2005 – June 2006: visiting scholar at the Berkeley Wireless Research Center, University of California, Berkeley.

Education

- January 2005 – Ph.D. in Information and Communication Engineering, with full marks, at the INFOCOM Department, School of Engineering, University of Rome La Sapienza, defending a thesis with title: “Location-aware, power-efficient MAC and routing strategies for UWB wireless communications”
- July 2001 – “Laurea” degree in Telecommunication Engineering, with full marks, at University of Rome La Sapienza, defending a thesis focusing on the analysis of convergence of UWB multihop networks to a small-world topology

Editorial activities

- From September 2007 to December 2009: Associate editor for the journal *Research Letters on Communications*, published by Hindawi Publishing Corporation.
- Since December 2009: Editor for the journal *Journal of Electrical and Computer Engineering*, published by Hindawi Publishing Corporation.
- From May 2014 to September 2017: Editor for the journal *International Journal on Distributed Sensor Networks*, published by Hindawi Publishing Corporation e da SAGE Publishing.
- Since October 2016: Editor for the journal *Wireless Communications and Mobile Computing*, published by Wiley and Hindawi Publishing Corporation.
- Since April 2018: Editor for the journal *Sensors*, published by MDPI.
- Since May 2018: Editor for the journal *Telecommunications*, published by MDPI.
- Guest editor for the Special Issue “Special Issue on Technology For Reliable And Intelligent Networking Infrastructures” published on *Springer Mobile Networks and Applications* (2017)
- Reviewer for the following international Journals:
 - IEEE Transactions on Circuits and Systems
 - IEEE Transactions on Communications
 - IEEE Transactions on Wireless Communications
 - KICS Journal on Communications and Networks
 - IEEE Journal on Selected Areas in Communications
 - Kluwer Mobile Networks and Applications
 - EURASIP Journal on Wireless Communications and Networking
- Track co-chair for the Wireless Access Track of the 2013 IEEE Vehicular Technology Conference Fall (VTC-Fall 2013), September 2 – 5 2013, Las Vegas, Nevada, USA.
- Co-Chair of the 1st Workshop on Cognitive Radio Medium Access Control and Network Solutions (MACNET) co-located with IEEE PIMRC 2013, September 8-13, 2013, London, UK

- Co-Chair of the Networking protocols track at the ICST CROWNCOM 2016 conference, May 30-June 1, 2016, Grenoble, France.
- Chair for the “Spectrum Sharing, Spectrum Management, and Cognitive Radio” track of the IEEE VTC2018-Fall conference, Chicago, IL, USA, August 27-30, 2018.
- Member of the Technical Program Committee for the following international conferences:
 - IEEE Global Communications Conference 2018 (Globecom 2018), SAC-ANS track, December 9 – 13, 2018, Abu Dhabi, EAU.
 - 12th IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks (DySPAN 2018),– October 22 - 25, 2018, Seoul, South Korea.
 - 9th Indoor Positioning and Indoor Navigation International conference (IPIN 2018), September 24 – 27, 2018, Nantes, France.
 - 13th EAI International Conference on Cognitive Radio Oriented Wireless Networks (CROWNCOM 2018), September 18 – 20, 2018, Ghent, Belgium.
 - 29th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2018), September 9 – 12, 2018, Bologna, Italy.
 - 15th International Symposium on Wireless Communication Systems (ISWCS 2018), August 28 – 31, 2018, Lisbon, Portugal.
 - 2018 IEEE 88th Vehicular Technology Conference (VTC2018-Fall), August 27 – 30, 2018, Chicago, IL, USA.
 - 8th ICL-GNSS International Conference on Localization and GNSS, June 26 – 28, 2018, Guimaraes, Portugal.
 - WCSP'17 Wireless Communications Symposium, October 11 – 13, 2017, Nanjing, China.
 - IRACON-WS 2017 (Workshop on Dependable Wireless Communications and Localization for the IoT) September 12, 2017, Graz, Austria.
 - 2017 IEEE 86th Vehicular Technology Conference (VTC2017-Fall), September 24 – 27, 2017, Toronto, Canada.
 - 12th EAI International Conference on Cognitive Radio Oriented Wireless Networks (CROWNCOM 2017), September 20 – 21, 2017, Lisbon, Portugal.
 - 8th Indoor Positioning and Indoor Navigation International conference (IPIN 2017), September 18 – 21, 2017, Sapporo, Japan.
 - 14th International Symposium on Wireless Communication Systems (ISWCS 2017), August 28 – 31, 2017, Bologna, Italy.
 - 7th ICL-GNSS International Conference on Localization and GNSS, June 27 – 29, 2017, Nottingham, UK.
 - 24th International Conference on Telecommunications (ICT 2017), May 3 - 5, 2017, Limassol, Cyprus.
 - 2nd EAI International Conference on Future Access Enablers of Ubiquitous and Intelligent Infrastructures (FABULOUS 2016), October 24 - 26, 2016, Belgrade, Serbia.
 - 7th Indoor Positioning and Indoor Navigation International conference (IPIN 2016), October 4 - 7, 2016, Madrid, Spain.
 - Thirteenth International Symposium on Wireless Communication Systems (ISWCS 2016), September 20 - 23, 2016, Poznan, Poland.
 - 2016 IEEE Vehicular Technology Conference Fall (VTC-Fall 2016), September 18 – 21 2016, Montréal, Canada.
 - 12th International Wireless Communications and Mobile Computing Conference (IWCMC 2016), September 5 - 9, 2016, Paphos, Cyprus.
 - 27th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2016), September 4 – 7, 2016, Valencia, Spain.
 - 6th International Joint Conference on Pervasive and Embedded Computing and Communication Systems (PEC 2016), July 25 - 27, 2016, Lisbon, Portugal.
 - 6th ICL-GNSS International Conference on Localization and GNSS, June 28 - 30, 2016, Barcelona, Spain.
 - 11th EAI International Conference on Cognitive Radio Oriented Wireless Networks (CROWNCOM 2016), May 30 – June 1, 2016, Grenoble, France.
 - IEEE International Conference on Communications 2016 (ICC 2016), May 23 - 27, 2016, Kuala Lumpur, Malaysia.
 - 23rd International Conference on Telecommunications (ICT 2016), 16 - 18 May 2016, Thessaloniki, Greece.

- IEEE Canadian Conference on Electrical and Computer Engineering (CCECE), May 15 - 18, 2016, Vancouver, BC, Canada.
- 2016 IEEE 83rd Vehicular Technology Conference (VTC2016-Spring), May 15 – 18, 2016, Nanjing, China.
- 2015 International Conference on Computing and Network Communications (CoCoNet'15), December 16 - 19, 2015, Trivandrum, Kerala, India.
- IEEE Global Communications Conference 2015 (Globecom 2015), December 6 – 10 2015, San Diego, California, USA.
- 9th IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks (DySPAN 2015), September 29 – October 2, 2015, Stockholm, Sweden.
- 2015 IEEE Vehicular Technology Conference Fall (VTC-Fall 2015), September 6 – 9 2015, Boston, USA.
- 26th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2015), August 30 – September 2, 2015, Hong Kong, China.
- IEEE International Conference on Communications 2015 (ICC 2015), June 8 – 12, 2015, London, UK.
- IEEE Global Communications Conference 2014 (Globecom 2014), December 9 – 12 2014, Austin, Texas, USA.
- IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2014), September 2 – 5 2014, Washington D.C., USA.
- IEEE International Conference on Ultra Wide Band 2014 (ICUWB 2014), September 1 – 3 2014, Paris, France.
- IEEE International Conference on Communications 2014 (ICC 2014), June 10 – 14, 2014, Sydney, Australia.
- IEEE INFOCOM Workshop on Mobile Cloud Computing 2014, April 27 - May 2, 2014, Toronto, Canada.
- 2014 IEEE Wireless Communications and Networking Conference (WCNC 2014), April 6 – 9 2014, Istanbul, Turkey.
- IEEE Global Communications Conference 2013 (Globecom 2013), December 9 – 13 2013, Atlanta, Georgia, USA.
- IEEE Military Communications Conference (MILCOM 2013), November 18 – 20, 2013, San Diego, California.
- 6th IFIP Wireless Days Conference, November 13 – 15 2013, Valencia, Spain.
- 24th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2013), September 18 – 11 2013, London, UK.
- IEEE International Conference on Communications 2013 (ICC 2013), June 9 – 13, 2013, Budapest, Hungary.
- ICT-2013, May 6 – 8, 2013, Casablanca, Morocco.
- 2013 IEEE Wireless Communications and Networking Conference (WCNC 2013), April 7 – 10 2013, Shanghai, China.
- 3rd International Conference on Pervasive and Embedded Computing and Communication Systems (PECCS 2013), February 19 -21, 2013, Barcelona, Spain.
- 2012 International Conference on Connected Vehicles & Expo (ICCVE 2012), December 12 – 16 2012, Beijing, China.
- IEEE Global Communications Conference 2012 (Globecom 2012), December 3 – 7 2012, Anaheim, California, USA.
- 23rd Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2012), September 9 – 12 2012, Sydney, Australia.
- First IEEE International Conference on Communications in China (ICCC 2012), August 15 – 18 2012, Beijing, China.
- 2nd IEEE International Workshop on Smart Communication Protocols and Algorithms (SCPA 2012), June 10 – 15 2012, Ottawa, Canada.
- IEEE International Conference on Communications 2012 (ICC 2012), June 10 – 15 2012, Ottawa, Canada.
- Third International Workshop on Cognitive Information Processing (CIP 2012), May 28 -30, 2012, Pontevedra, Spain.
- 2012 IEEE Wireless Communications and Networking Conference (WCNC 2012), April 1 – 4 2012, Paris, France.
- IEEE Global Communications Conference 2011 (Globecom 2011), December 5 – 9 2011, Houston, Texas, USA.

- International Conference on Selected Topics in Mobile and Wireless Communications (iCOST 2011), October 10 – 12 2011, Shanghai, China.
 - 22nd Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2011), September 11 – 14 2011, Toronto, Canada.
 - ACROPOLIS workshop at PIMRC 2011, September 11 – 14 2011, Toronto, Canada.
 - IEEE International Conference on Communications 2011 (ICC 2011), June 5 – 9 2011, Kyoto, Japan.
 - 9th Annual Conference on Communications Networks and Services Research (CNSR 2011), May 2 – 5 2011, Ottawa, Canada.
 - IEEE Global Communications Conference 2010 (Globecom 2010), December 6 – 10 2010, Miami, Florida, USA.
 - 2010 IEEE 72nd Vehicular Technology Conference (VTC2010-Fall), September 6 – 9 2010, Ottawa, Canada.
 - 2nd International Workshop on Cognitive Information Processing (CIP 2010), June 14 – 16 2010, Elba Island, Italy.
 - IEEE International Conference on Communications 2010 (ICC 2010), May 23 – 27 2010, Cape Town, South Africa.
 - 8th Annual Conference on Communications Networks and Services Research (CNSR 2010), May 11 – 14 2010, Montreal, Canada.
 - Third International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM 2009), October 11 – 16 2009, Sliema, Malta.
 - IEEE International Conference on Communications 2009 (ICC 2009), Wireless Networks Symposium, June 14 – 18 2009, Dresden, Germany.
 - 7th Annual Conference on Communications Networks and Services Research (CNSR 2009), May 11 – 13 2009, Moncton, New Brunswick, Canada.
 - 2009 IEEE Wireless Communications and Networking Conference (WCNC 2009), April 5 – 8 2009, Budapest, Hungary.
 - Second International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM 2008), September 29 – October 4 2008, Valencia, Spain.
 - IEEE Global Communications Conference 2008 (GlobeCom 2008), November 30 – December 4 2008, New Orleans, LA, USA.
 - IEEE International Conference on UWB 2008 (ICUWB 2008), September 10 – 12 2008, Hannover, Germany.
 - Mosharaka International Conference on Communications, Computers and Applications (MIC-CCA 2008), August 8 - 10, 2008, Amman, Jordan.
 - IEEE International Conference on Communications 2008 (ICC 2008), Wireless Networks Symposium, May 19 – 23 2008, Beijing, China.
 - First International Conference on Mobile Ubiquitous Computing, Systems, Services, and Technologies (UBICOMM 2007), November 4 – 9 2007, Papeete, French Polynesia (Tahiti).
 - IEEE International Conference on Ultra-Wideband (ICUWB2007), September 24 - 26 2007, Singapore.
 - International Wireless Communications and Computing Conference (IWCCC 2006), 2006, Vancouver, Canada.
 - First Wireless Euro-Mediterranean International Conference (WEMIC 2006), March 27-29, 2006, Amman, Jordan.
 - 1st IEEE/CreateNet International Workshop on “Ultrawideband Wireless Networking” (UWBNETS), October 7, 2005, Boston, MA, USA.
 - IEEE International Conference on UWB 2005 (ICU 2005), September 5 – 8 2005, Zurich, Switzerland.
 - Second International Workshop Networking with Ultra Wide Band (NEUWB2), July 4 – 6 2005, Rome, Italy.
 - International Workshop on Wireless Ad-hoc Networks 2005 (IWWAN 2005), May 23 – 26 2005, London, UK.
 - International Workshop on Wireless Ad-hoc Networks 2004 (IWWAN 2004), May 31 – June 3 2004, Oulu, Finland.
 - International Workshop on UWB Systems Joint with IEEE Conference on Ultra Wide Band Systems and Technologies 2004 (IWUBST2004), May 18 – 21 2004, Kyoto, Japan.
 - IEEE Conference Ultra Wide Band Systems and Technologies 2003 (IWUBST 2003), November 16 – 19 2003, Reston, Virginia, USA.
- Reviewer for the following international Conferences:

- IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS)
- IEEE International Workshop on Signal Processing Advances for Wireless Communications (SPAWC)
- IEEE International Conference on Communications (ICC)
- IEEE Wireless Communications and Networking Conference (WCNC)
- IEEE Global Communications Conference (Globecom)
- IEEE Vehicular Technology Conference (VTC)

Research evaluation

- Evaluator of project proposals for Open Calls issued by the following European projects:
 - FP7 CREW (Cognitive Radio Experimentation World) - Open Calls OC1 (2011), OC2 (2012);
 - H2020 WISHFUL (Wireless Software and Hardware platforms for Flexible and Unified radio and network control) – Open Calls OC1 (2016) OC2 (2016), OC3 (2017), OC4 (2017), OC5 (2017);
 - H2020 Fed4FIRE+ (Federation for FIRE Plus) - Open Calls OC2 (2017), OC3 (2018);
 - H2020 ORCA (Orchestration and Reconfiguration Protocols) - Open Calls OC1 (2017);
- Evaluator for the Call “PRIN 2017” issued by the Italian Ministry for Education and Research (2018).

Teaching activity

Professorship

- Course “Comunicazioni Elettriche I,” (Electrical communications I), for the Electronics Engineering Laurea degree held at the School of Engineering, University of Rome La Sapienza, Academic years 2017-2018, 2018-2019.
- Course “Comunicazioni Elettriche II Modulo,” (Electrical communications II), for the Electronics Engineering Laurea degree held at the School of Engineering, University of Rome La Sapienza, Academic years 2007/2008, 2011/2012, 2012/2013, 2013/2014, 2014/2015, 2015-2016, 2016-2017.
- Course “Telecomunicazioni”, (Telecommunications), for the Electrical Engineering Laurea degree held at the School of Engineering, University of Rome La Sapienza, Academic year 2007/2008, 2017-2018, 2018-2019.
- Course “Comunicazioni Elettriche,” (Electrical communications), for the Electrical Engineering Laurea degree held at the School of Engineering, University of Rome La Sapienza, Academic year 2006/2007.
- Course “Laboratorio Interdisciplinare, modulo II,” (Electrical communications Lab), for the Electronics Engineering Laurea degree held at the School of Engineering, University of Rome La Sapienza, Academic year 2004/2005, 2010/2011.
- (Joint) course “Comunicazioni Elettriche II Modulo,” (Electrical communications II) for the Electronics Engineering Laurea degree held at the School of Engineering, University of Rome La Sapienza, Academic year 2004/2005.

Teaching assistance

- Teaching assistance for the course of Wireless Access, for the Telecommunications Engineering Laurea degree, held by Professor Maria-Gabriella Di Benedetto at the School of Engineering, University of Rome La Sapienza, Academic years 2004/2005, 2008/2009, 2009/2010, 2011/2012, 2012/2013, 2013/2014, 2014/2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019.
- Teaching assistance for the course of Ultra Wide Band Communication systems for the Telecommunications Engineering Laurea degree held by Professor Maria-Gabriella Di Benedetto at the School of Engineering, University of Rome La Sapienza, Academic years 2004/2005, 2006/2007, 2008/2009.
- Teaching assistance for the course of “Comunicazioni Elettriche, Modulo II,” for the Electronics Engineering Laurea degree held by Professor Maria-Gabriella Di Benedetto at the School of Engineering, University of Rome La Sapienza, Academic years 2001/2002 – 2003/2004, 2008/2009, 2009/2010.
- Teaching assistance for the course of “Comunicazioni Elettriche, Modulo I,” for the Electronics Engineering Laurea degree held by Professor Maria-Gabriella Di Benedetto at the School of Engineering, University of Rome La Sapienza, Academic years 2001/2002 – 2003/2004, 2006/2007.

- Teaching assistance for the course of Optical Communications, for the Telecommunications Engineering Laurea degree, held by Professor Maria-Gabriella Di Benedetto at the School of Engineering, University of Rome La Sapienza, Academic years 2004/2005, 2005/2006.
- Seminars on third and fourth generation wireless systems in the framework of the course “Laboratorio Interdisciplinare, Modulo II,” for the Electronics Engineering Laurea degree held by Professor Maria-Gabriella Di Benedetto at the School of Engineering, University of Rome La Sapienza, Academic years 2001/2002 – 2003/2004.
- Training courses on UMTS and WiFi networks held for Telecom Italia Learning Services, in the period September 2002 – February 2004.

Participation in research projects

International Projects

- October 2010 – December 2013: Work Package leader in the framework of the EU-funded Network of Excellence “Advanced coexistence technologies for radio optimisation in licensed and unlicensed spectrum (ACROPOLIS)”, funded by the European Commission with the 7th Framework Program.
- May 2010 – May 2014: leader of Working Group 1 “CR/SDR deployment scenarios” in the framework of COST Action IC0905.
- In January 2010 he was nominated by Italian Ministry of University as one of the two representatives for Italy in the COST Action IC0905 “Techno-Economic Regulatory Framework for Radio Spectrum Access for Cognitive Radio/Software Defined Radio (TERRA)”, funded by the European Science Foundation through the COST office.
- December 2009 – December 2013: Working Group and Special Interest Group leader in the framework of COST Action IC0902 “Cognitive Radio and Networking for Cooperative Coexistence of Heterogeneous Wireless Networks” funded by the European Science Foundation through the COST office: leader of Working Group 5 “Cognitive engine” (since September 2011), and co-leader of Special Interest Group 3 “Mobility management for cognitive wireless networks” (since December 2009)
- He coordinated for INFOCOM Department of University of Rome La Sapienza the successful proposal for the European Integrated Project “Location based services for the enhancement of working environment (LIAISON).” The project, funded by the European Union in the 6th IST framework, started in September 2004 and was successfully concluded in March 2008. He was also in charge of research activities within the LIAISON project, focusing on UWB-based indoor positioning.
- He participated for the INFOCOM Department of University of Rome La Sapienza in the European Integrated Project “Pervasive Ultra-wideband Low Spectral energy Radio Systems (P.U.L.S.E.R.S.) Phase II,” funded by the European Union in the 6th IST framework and started in January 2006. Research activities focus on the design of a MAC protocol Body Area UWB networks (2006-2007).
- He was in charge for the INFOCOM Department of University of Rome La Sapienza of research activities within the European Integrated Project “Pervasive Ultra-wideband Low Spectral energy Radio Systems (P.U.L.S.E.R.S.) Phase I,” funded by the European Union in the 6th IST framework, Research activities focused on the design of a MAC protocol for low bit rate, location-based UWB networks (2004-2005).
- He was in charge for the INFOCOM Department of University of Rome La Sapienza of research activities within the European Project “Ultra-wideband Concepts for Ad-hoc Networks (U.C.A.N.)” funded by the European Union in the 5th IST framework (2002 – 2005). Research activities focused on design of MAC and routing protocol for medium-to-high data rate UWB ad-hoc networks.
- He participated in the European Network of Excellence on “HYbrid systems modeling and CONTROL (HYCON),” (2004 – 2008).
- He participated in the European Project “Whyless.com,” funded by the European Union in the 5th IST framework (2001 – 2003).

National projects

- He participated for the INFOCOM Department of University of Rome La Sapienza to research activities within the Italian national project “IRMA” (January 2006 – January 2008), dealing with UWB Low Data Rate networks
- He was in charge for the INFOCOM Department of University of Rome La Sapienza of research activities within the Italian national project “VICOM - Virtual Immersive COmmunications” (2003 – 2004), dealing with UWB-based positioning.
- He participated in the Italian national project “OFDM systems for Wireless LANs” (2002)

Industry-funded projects

- He participated in the research project “HUMANET,” funded by Thales Communications Italy (2003 – 2004), focusing on study and simulation of UWB ad-hoc networks for mixed indoor/outdoor scenarios.
- He was in charge for the INFOCOM Department of University of Rome La Sapienza of research activities within the project “Ultra Wide Band Ranging and Positioning in Radio Communication Systems,” funded by ST Microelectronics Italy (2004 – 2005)

Invited talks and seminars

- July 2013, seminar “Cognitive UWB Networks” within the Third IC0902 International Summer School on Cognitive Wireless Communications, July 9 – 12 2013, London, UK.
- September 2012, seminar “Collaborative/Cooperative Spectrum Sensing”, within the ACROPOLIS Summer School 2012, September 5 – 7, 2012, Athens, Greece.
- September 2012, seminar “Awareness at the Local Level”, within the ACROPOLIS Summer School 2012, September 5 – 7, 2012, Athens, Greece.
- September 2012, seminar “MAC in cognitive networks”, within the ACROPOLIS Summer School 2012, September 5 – 7, 2012, Athens, Greece.
- July 2011, seminar “Neighbour discovery” within the First IC0902 International Summer School on Cognitive Wireless Communications, July 12 – 15, 2011, Florence, Italy.
- June 2004, seminar at ST Microelectronics Italy, entitled “UWB Ranging and positioning in Radio Communication Systems”
- July 2003, invited seminar in the framework of the Summer Research Institute 2003, Ecole Polytechnique Fédérale de Lausanne, entitled “Power aware routing metric for UWB wireless networks”
- July 2002, seminar at University of California at Los Angeles, entitled “Ultra Wideband Networks Organization”
- July 2002, seminar at University of California at San Diego, entitled “Ultra Wideband Networks Organization”
- July 2002, seminar at University of California at Berkeley, entitled “Ultra Wideband Networks Organization”
- May 2002, invited seminar in the framework of the Wireless Networking workshop, Wireless Design Conference 2002, London, UK, entitled “Networking and Routing in UWB Systems”

Tutorials

- L. De Nardis, M.-G. Di Benedetto, L. Gavrilovska, O. Holland, tutorial “Cross-layer design of Medium Access Control and Routing in cognitive radio networks: review, classification, cross-layer approach and challenges” 2013 IEEE International Conference on Communications (ICC 2013), June 9 – 13 2013, Budapest, Hungary.
- A Giorgetti, L. De Nardis, K. Sithampanathan, tutorial “Cognitive radio based on UWB technology - a perfect binomial” IEEE 73rd Vehicular Technology Conference: VTC2011-Spring, May 15-18 2011, Budapest, Hungary.
- K. Sithampanathan, A Giorgetti, L. De Nardis, tutorial “Cognitive Radios and Enabling Technologies” 2010 IEEE Wireless Communications and Networking Conference (WCNC 2010), April 18 – 21 2010, Sydney, Australia.

Technology transfer and spin offs

- In February 2012 he cofounded the Sapienza University of Rome spin-off Supporting People indoor – a Navigation venture (SPinV) focusing on indoor positioning and navigation technologies and services.

Publications

Refereed Journal papers

- [J18] Mai T.P. Le, G. C. Ferrante, G. Caso, **L. De Nardis** and M.-G. Di Benedetto, "On Information-theoretic limits of Code-domain NOMA for 5G," IET Communications, Volume 12, Issue 15, pp. 1864 – 1871 18 September 2018. DOI: 10.1049/iet-com.2018.5241.
- [J17] **L. De Nardis**, J. Fiorina, G.-C. Ferrante and M.-G. Di Benedetto, "Robustness of Time Reversal vs. All Rake Transceivers in Multiple Access Channels," Wireless Communications and Mobile Computing, Volume 28, Article ID 7548926, June 2018. DOI: 10.1155/2018/7548926.
- [J16] S. Boldrini, **L. De Nardis**, G. Caso, M. T. P. Le, J. Fiorina and M.-G. Di Benedetto, "muMAB: a Multi-Armed Bandit model for wireless network selection," Algorithms, Volume 11, Issue 2, February 2018. DOI: 10.3390/a11020013.
- [J15] G. Caso, M. T. P. Le, **L. De Nardis** and M.-G. Di Benedetto, "Performance Comparison of WiFi and UWB Fingerprinting Indoor Positioning Systems," Technologies, Volume 6, Issue 1, January 2018. DOI: 10.3390/technologies6010014.
- [J14] G. Caso, **L. De Nardis** and M.-G. Di Benedetto, "Toward Context-Aware Dynamic Spectrum Management for 5G," IEEE Wireless Communications, Special Issue on Dynamic Spectrum Access for 5G, Volume 24, Issue 5, pp. 38-43, October 2017. DOI: 10.1109/MWC.2017.1700090
- [J13] G. Caso, **L. De Nardis**, M. T. Phuong Le, F. Maschietti, J. Fiorina and M.-G. Di Benedetto "Performance Evaluation of Non-prefiltering vs. Time Reversal prefiltering in distributed and uncoordinated IR-UWB Ad-Hoc networks," ACM Springer Mobile Networks and Applications, Special Issue on Technology For Reliable And Intelligent Networking Infrastructures, Volume 22, Issue 5, October 2017, pp. 796-805. DOI: 10.1007/s11036-017-0829-6.
- [J12] G. Caso and **L. De Nardis**, "Virtual and Oriented WiFi Fingerprinting Indoor Positioning based on Multi-Wall Multi-Floor Propagation Models," ACM Springer Mobile Networks and Applications, Special Issue on Technology For Reliable And Intelligent Networking Infrastructures, Volume 22, Issue 5, October 2017, pp. 825-833. DOI: 10.1007/s11036-016-0749-x.
- [J11] A. Kliks, D. Triantafyllopoulou, **L. De Nardis**, O. Holland, L. Gavrilovska, and A. Bantouna, "Cross-Layer Analysis in Cognitive Radio - Context Identification and Decision Making Aspects," IEEE Transactions on Cognitive Communications and Networking, Volume 1, Issue 4, Dec. 2015, pp. 450-463. DOI: 10.1109/TCCN.2016.2566643.
- [J10] G. Caso, **L. De Nardis** and M.-G. Di Benedetto, "A Mixed Approach to Similarity Metric Selection in Affinity Propagation-Based WiFi Fingerprinting Indoor Positioning", Sensors 2015, Volume 15, Issue 11, pp. 27692-27720. DOI: 10.3390/s151127692
- [J9] K. Cichon, **L. De Nardis**, H. Bogucka, M.-G. Di Benedetto, "Mobility-Aware, Correlation-Based Node Grouping and Selection for Cooperative Spectrum Sensing," Journal of Telecommunications and Information Technology (JTIT), Volume 2/2014, pp. 90 - 102.
- [J8] **L. De Nardis**, J. Fiorina, D. Panaitopol e M.-G. Di Benedetto, "Combining UWB with Time Reversal for improved communication and positioning," Springer Telecommunication Systems, Volume 52, Issue 2, 2013, pp. 1145-1158. DOI: 10.1007/s11235-011-9630-1.
- [J7] R. Chávez-Santiago, K. E. Nolan, O. Holland, **L. De Nardis**, J. M. Ferro, N. Barroca, L. M. Borges, F. J. Velez, V. Goncalves and I. Balasingham, "Cognitive Radio for Medical Body Area Networks Using Ultra Wideband," IEEE Wireless Communications Magazine, Special Issue on "Cognitive Radio Networks: A Practical Perspective", Volume 19, Issue 4, August 2012, pp. 74 - 81.
- [J6] M.-G. Di Benedetto, **L. De Nardis**, G. Giancola and D. Domenicali "The Aloha access (UWB)² protocol revisited for IEEE 802.15.4a," ST Journal of Research, Volume 4, Issue 1, May 2007, pp. 131 – 142. Available online at <http://www.st.com/stonline/press/magazine/stjournal/index.htm>.
- [J5] M.-G. Di Benedetto and **L. De Nardis**, "Tuning UWB Signals by Pulse Shaping", Special Issue on Signal Processing in UWB Communications, Eurasip Journal on Signal processing, invited paper, Elsevier Publishers, Volume 86, Issue 9, September 2006, pp. 2172 – 2184.
- [J4] R. Cardinali, **L. De Nardis**, P. Lombardo and M.-G. Di Benedetto, "UWB Ranging Accuracy in High and Low Data Rate Applications," Special Issue on UWB, IEEE Transactions on Microwave Theory and Techniques, Volume 54, Issue 4, April 2006, pp. 1865 – 1875.
- [J3] M.-G. Di Benedetto, **L. De Nardis**, M. Junk and G. Giancola, "(UWB)²: Uncoordinated, Wireless, Baseborn, medium access control for UWB communication networks," Mobile Networks and

- Applications, Special Issue on WLAN Optimization at the MAC and Network Levels, Volume 10, Issue 5, October 2005, pp. 663 – 674.
- [J2] **L. De Nardis** and M.-G. Di Benedetto, "Medium Access Control Design for UWB Communication Systems: Review and Trends," KICS Journal of Communications and Networks, Volume 5, Issue 4, December 2003, pp. 386 – 393.
- [J1] P. Baldi, **L. De Nardis** and M.-G. Di Benedetto, "Modeling and Optimization of UWB Communication Networks Through a Flexible Cost Function," IEEE Journal on Selected Areas in Communications, Volume 20, Issue 9, December 2002, pp. 1733 – 1744.

Editorials

- [E1] **L. De Nardis** and M. Petrova, "Emerging Technologies for Ubiquitous and Intelligent Infrastructures," ACM Springer Mobile Networks and Applications, Special Issue on Technology For Reliable And Intelligent Networking Infrastructures, Volume 22, Issue 5, October 2017, pp. 783-784. DOI: 10.1007/s11036-017-0849-2.

Books

- [B3] M.-G. Di Benedetto, A.F. Cattoni, J. Fiorina, F. Bader and **L. De Nardis** (eds.), Cognitive radio and Networking for Heterogeneous Wireless Networks, Springer International Publishing (2015).
- [B2] J. Fiorina and **L. De Nardis**, First International School on Cognitive Wireless Communications - COST Action IC0902 and Network of Excellence ACROPOLIS joint 2011 Summer School, Florence, Italy, July 12-15 2011 - Lecture notes, Editrice Esculapio, Bologna, Italy (June 2011)
- [B1] M.-G. Di Benedetto, D. Domenicali and **L. De Nardis**, "Comunicazioni elettriche – esercizi e temi d'esame", Pearson Education – Paravia Bruno Mondadori Editori (2007).

Book chapters

- [BC15] G. Caso, M.T. Phuong Le, **L. De Nardis** and M.-G. Di Benedetto, "Non-Cooperative and Cooperative Spectrum Sensing in 5G Cognitive Networks," in W. Zhang, Handbook of Cognitive Radio, Springer International Publishing, 2019. E-ISBN: 978-981-10-1389-8. DOI: 10.1007/978-981-10-1389-8_7-1.
- [BC14] G. Caso, **L. De Nardis** and M.-G. Di Benedetto, "Low-Complexity Offline and Online Strategies for WiFi Fingerprinting Indoor Positioning Systems," to appear in J. Conesa, R. Montoliu, A. Pérez-Navarro and J. Torres, Using Geographical and Fingerprinting Data to create Systems for Indoor Positioning and indoor/outdoor Navigation: Challenges, Experiences and Technology Roadmap, Elsevier, 2018. ISBN: 9780128131893..
- [BC13] G. Caso and **L. De Nardis**, "On the applicability of Multi-Wall Multi-Floor propagation models to WiFi Fingerprinting Indoor Positioning," in V. Atanasovski and A. Leon-Garcia, Future Access Enablers for Ubiquitous and Intelligent Infrastructures, Wiley International Publishing, 2016, Chapter 21. DOI: 10.1007/978-3-319-27072-2.
- [BC12] G. Caso, **L. De Nardis**, R. Thobaben, M.-G. Di Benedetto, "Cooperative Sensing of Spectrum opportunities," in O. Holland, H. Bogucka and A. Medeisis (eds.), Opportunistic Spectrum Sharing and White Spaces Access: The Practical Reality, Wiley International Publishing, 2015, pp. 143 - 166.
- [BC11] G. Caso, **L. De Nardis**, O. Holland, "Simulation of Cognitive Radio Networks in OMNeT++", in: M.-G. Di Benedetto, A.F. Cattoni, J. Fiorina, F. Bader and L. De Nardis (eds.), Cognitive radio and Networking for Heterogeneous Wireless Networks, Springer International Publishing, 2015, pp. 291 - 313.
- [BC10] **L. De Nardis** and O. Holland, "Deployment Scenarios for Cognitive Radio," in: A. Medeisis and O. Holland (eds.), Cognitive Radio Policy and Regulation: Techno-Economic Studies to Facilitate Dynamic Spectrum Access, Springer, 2014, pp. 49 - 116.
- [BC9] K. Katzis, A. Perotti and **L. De Nardis**, "Testbeds and Implementation Issues," in: M.-G. Di Benedetto and C. Bader, Cognitive Communication and Cooperative HetNet Coexistence, Springer International Publishing, 2014, pp 343 - 365.

- [BC8] **L. De Nardis**, G.C. Ferrante, M.-G. Di Benedetto, "Medium Access Control in Cognitive Impulse Radio UWB Networks," in: M.-G. Di Benedetto and C. Bader, *Cognitive Communication and Cooperative HetNet Coexistence*, Springer International Publishing, 2014, pp. 163 - 186.
- [BC7] A. Kliks, A. Medeisis, Y. Haddad, M. Masonta, **L. De Nardis**, O. Holland, "Intelligent Future Wireless Networks for Energy Efficiency - Overall Analysis and Standardization Activities," in: S. Khan and J. Lloret Mauri (eds.), *Green networking and communications*, Taylor and Francis LLC, 2013, pp. 81 - 118.
- [BC6] **L. De Nardis** and M.-G. Di Benedetto, "Cognitive networks: routing models," in: B. Furht (ed.), *Encyclopedia of Wireless and Mobile Communications*, Second Edition, ISBN: 9781466509566, CRC Press, December 2012, pp. 235 - 255.
- [BC5] **L. De Nardis** and M.-G. Di Benedetto, "Cognitive routing models," in: X. Yang and H. Fei (eds.), *Cognitive radio networks*, ISBN: 9781420064209, CRC Press, December 2008, pp. 235 - 255.
- [BC4] J. M. Rabaey, Y.-H. Chee, D. Chen, **L. De Nardis**, S. Gambini, D. Guermandi, M. Mark and N. Pletcher, "Short Distance Wireless and Its Opportunities," in K. Iniewski (ed.), *Wireless Technologies: Circuits, Systems, and Devices*, CRC Press, October 2007, pp. 159 - 183.
- [BC3] **L. De Nardis** and G. M. Maggio, "Low data rate UWB networks," in H. Arslan, Z. N. Chen and M.-G. Di Benedetto (eds.), *Ultra Wideband Wireless Communications*, John Wiley & Sons, Inc., October 2006, pp. 315 - 339.
- [BC2] **L. De Nardis**, M.-G. Di Benedetto and S. Falco, "Higher layer issues, Ad-Hoc and Sensor Networks," in M.-G. Di Benedetto, T. Kaiser, A. F. Molish, I. Oppermann, C. Politano, D. Porcino (eds.), *UWB Communications Systems - A Comprehensive Overview*, Hindawi Publishing Corporation, May 2006, pp. 205 - 222.
- [BC1] **L. De Nardis**, P. Baldi and M.-G. Di Benedetto "Ultra Wide Band Network Organization," in M.-G. Di Benedetto (ed.), *Networking with Ultra Wide Band*, Ingegneria2000, September 2002, pp. 7-1 - 7-9.

Conference papers

- [C74] M. T. P. Le, G. Caso, **L. De Nardis**, A. Mohammadpour, G. Tucciarone and M.-G. Di Benedetto, "Capacity bounds of Low-Dense NOMA over Rayleigh fading channels without CSI," 2018 25th International Conference on Telecommunications (ICT), Saint-Malo, France, June 26-28, 2018.
- [C73] F. Lemic, V. Handziski, G. Caso, P. Crombez, T. Van Haute, E. De Poorter, **L. De Nardis** and A. Wolisz, "Toward Extrapolation of WiFi Fingerprinting Performance Across Environments," ACM HotMobile 2016 - The 17th International Workshop on Mobile Computing Systems and Applications, St. Augustine, Florida, USA, February 24-26, 2016.
- [C72] F. Lemic, V. Handziski, G. Caso, **L. De Nardis** and A. Wolisz, "Enriched Training Database for Improving the WiFi RSSI-based Indoor Fingerprinting Performance," The 13th Annual IEEE Consumer Communications & Networking Conference, Las Vegas, NV, USA, January 9-12, 2016.
- [C71] G. Caso and **L. De Nardis**, "On the applicability of Multi-Wall Multi-Floor propagation models to WiFi Fingerprinting Indoor Positioning," 1st EAI International Conference on Future access enablers of ubiquitous and intelligent infrastructure, Ohrid, Macedonia, September 23-25, 2015.
- [C70] G. Caso, **L. De Nardis** and M.-G. Di Benedetto, "Frequentist Inference for WiFi Fingerprinting 3D Indoor Positioning," Workshop on Advances in Network Localization and Navigation, IEEE International Conference on Communications, London, UK, June 8-12 2015.
- [C69] **L. De Nardis**, S. Olivieri and M.-G. Di Benedetto, "Wireless Access Networks for Raspberry Pi" The International Symposium on Advances in Software Defined Networks SOFTNETWORKING 2015, Barcelona, Spain, April 19-24 2015.
- [C68] G. Caso, H. Soleimani, **L. De Nardis**, A. Tosti and M.-G. Di Benedetto, "SENSIC: Mobility-aware Cluster-based Cooperative Spectrum Sensing for Cognitive Radio Networks," IEEE International Conference on Ultra-Wideband (ICUWB'14), Paris, France, September 1-3 2014.
- [C67] H. Soleimani, G. Caso, **L. De Nardis** and M.-G. Di Benedetto, "Ultra Wideband and Bluetooth detection based on energy features," IEEE International Conference on Ultra-Wideband (ICUWB'14), Paris, France, September 1-3 2014.

- [C66] G. Caso, **L. De Nardis**, A. Ferrante and M.-G. Di Benedetto, "Cognitive Indoor Positioning in TV White Spaces," 4th Indoor Positioning and Indoor Navigation International conference (IPIN 2013), Montbeliard, France, October 28-31, 2013.
- [C65] M. Szydelko, **L. De Nardis** "From cognitive radio to cellular networks: summary and future research on routing protocols," MACNET Workshop at the IEEE PIMRC 2013 conference, London, UK, September 8-11, 2013.
- [C64] G. Caso, L. De Nardis, G. C. Ferrante and M.-G. Di Benedetto, "Cooperative Spectrum Sensing based on Majority decision under CFAR and CDR constraints," MACNET Workshop at the IEEE PIMRC 2013 conference, London, UK, September 8-11, 2013.
- [C63] G. Caso, **L. De Nardis**, O. Holland, M.-G. Di Benedetto, "Impact of Spatio-Temporal Correlation in Cooperative Spectrum Sensing for Mobile Cognitive Radio Networks," CRAFT workshop at the ISWCS 2013 conference, Ilmenau, Germany, August 27-30, 2013.
- [C62] A. M. Akhtar, **L. De Nardis**, M. Reza Nakhai, O. Holland, M.- G. Di Benedetto and A. H. Aghvami, "Multi-hop Cognitive Radio Networking through Beamformed Underlay Secondary Access," IEEE International Conference on Communications (ICC 2013), Budapest, Hungary, June 9-13, 2013.
- [C61] **L. De Nardis**, M.-G. Di Benedetto, O. Holland, A. Akhtar, H. Aghvami, V. Rakovic, V. Atanasovski, L. Gavrilovska, V. Stavroulaki, Y. Kritikou, A. Bantouna, P. Demestichas, D. Tassetto, S. Bovelli, S. Romaszko, "Neighbour and network discovery in cognitive radio networks: research activities and results in the ACROPOLIS Network of Excellence", European Wireless 2013 - ACROPOLIS Industry Session 1: Key Ideas and Demos, Guildford, UK, April 16-18 2013.
- [C60] M. Colizza, **L. De Nardis**, M. Patrizi and C. Rinaldi, "A novel architecture for a framework to support the storage of network simulation data into distributed storages for remote access," Emutools 2013 Workshop, Simutools 2013, Cannes, France, March 5-7 2013.
- [C59] O. Holland, **L. De Nardis**, K. Nolan, A. Medeisis, P. Anker, L. F. Minervini, F. Velez, M. Matinmikko and J. Sydor, "Pluralistic licensing", 6th IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks (DySPAN 2012), October 16 – 19, 2012, Bellevue, Washington, USA.
- [C58] A. Medeisis, O. Holland and **L. De Nardis**, "Taxonomy of Cognitive Radio Applications", 6th IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks (DySPAN 2012), October 16 – 19, 2012, Bellevue, Washington, USA.
- [C57] M.-G. Di Benedetto, A. Ferrante and **L. De Nardis**, "Cognitive Radio and Networking for Cooperative Coexistence of Heterogeneous Wireless Networks", First international IEEE-AESS conference in Europe about Space and Satellite Telecommunications (ESTEL 2012), October 2-5, 2012, Rome, Italy, pp. 1-6. DOI: 10.1109/ESTEL.2012.6400088, ISBN: 978-1-4673-4687-0.
- [C56] M. Masonta, Y. Haddad, **L. De Nardis**, A. Kliks, and O. Holland, "Energy Efficiency in Future Wireless Networks: Cognitive Radio Standardization Requirements", accepted at the 17th International Workshop on Computer-Aided Modeling Analysis and Design of Communication Links and Networks (CAMAD 2012), September 17-19, 2012, Barcelona, Spain, pp. 31 -35. DOI: 10.1109/CAMAD.2012.6335359.
- [C55] **L. De Nardis**, M.-G. Di Benedetto, D. Tassetto, S. Bovelli, A. Akhtar, O. Holland, R. Thobaben, "Impact of mobility in cooperative spectrum sensing: theory vs. simulation," 9th International Symposium on Wireless Communication Systems (ISWCS 2012), August 28–31, 2012, Paris, France, pp 416 - 420. DOI: 10.1109/ISWCS.2012.6328401.
- [C54] **L. De Nardis**, M.-G. Di Benedetto, V. Stavroulaki, A. Bantouna, Y. Kritikou, P. Demestichas, "Role of neighbour discovery in distributed learning and knowledge sharing algorithms for cognitive wireless networks," 9th International Symposium on Wireless Communication Systems (ISWCS 2012), August 28–31, 2012, Paris, France, pp. 421 - 425. DOI: 10.1109/ISWCS.2012.6328402.
- [C53] **L. De Nardis**, M.-G. Di Benedetto, A. Akhtar and O. Holland, "Combination of DOA and beamforming in position-based routing for underlay cognitive wireless networks," 7th International Conference on Cognitive Radio Oriented Wireless Networks & Communications (CROWNCOM 2012), June 18–20, 2012 Stockholm, Sweden, pp. 218 - 223.
- [C52] D. Tassetto, S. Bovelli, A. Akhtar, O. Holland, **L. De Nardis** and M.-G. Di Benedetto, "A Novel Simulation Framework for Wireless Cognitive Networks: Application to Cooperative Spectrum Sensing", 5th International ICST Conference on Simulation Tools and Techniques (SIMUTools 2012), Desenzano, Italy, March 19 – 23 2012.
- [C51] J. Fiorina, **L. De Nardis** and M.-G. Di Benedetto, "Sensing for Opportunistic Spectrum Access in Cognitive Radio: Exploitation of the Time to the Deadline," IC0902 5th MC Meeting and Workshop, Barcelona, Spain, October 4, 2011.
- [C50] **L. De Nardis** and M.-D. Perez Guirao, "Impact of Terminal Mobility on Cooperative Spectrum Sensing," IC0902 5th MC Meeting and Workshop, Barcelona, Spain, October 4, 2011.

- [C49] **L. De Nardis**, M.-G. Di Benedetto, A. Akhtar and O. Holland, "Combination of DOA and beamforming in position-based routing for cognitive wireless networks", 1st ACROPOLIS Workshop, Barcelona, Spain, October 4, 2011.
- [C48] A. Akhtar, O. Holland, **L. De Nardis** and M.-G. Di Benedetto, "Beamforming for Cognitive Radio with DOA position information" 1st ACROPOLIS Workshop, Barcelona, Spain, October 4, 2011.
- [C47] **L. De Nardis**, M.-G. Di Benedetto, V. Stavroulaki, A. Bantouna, Y. Kritikou and P. Demestichas, "Role of neighbor discovery in distributed learning and knowledge sharing algorithms for cognitive wireless networks" 1st ACROPOLIS Workshop, Barcelona, Spain, October 4, 2011.
- [C46] S. Gambini, **L. De Nardis**, E. Alon and J. Rabaey, "Interference robust self-mixing UWB systems using phase-domain spreading", IEEE International Conference on UWB, Bologna, Italy, September 14-16, 2011.
- [C45] S. Kandeepan, **L. De Nardis**, M.-G. Di Benedetto, A. Guidotti and G. Corazza, "Cognitive Satellite Terrestrial Radios", IEEE Global Communications Conference (Globecom 2010), December 6 - 10 2010, Miami, Florida, USA, pp. 1 -6. DOI: 10.1109/GLOCOM.2010.5683428
- [C44] J. Fiorina, **L. De Nardis**, A. Lambertucci and M.-G. Di Benedetto, "Sensing for Opportunistic Spectrum Access in Cognitive Radio: Exploitation of the Time to the Dead-Line", 3rd International Workshop on Cognitive Radio and Advanced Spectrum Management (COGART 2010), November 8 - 10 2010, Rome, Italy, pp. 1 - 7. DOI: 10.1109/ISABEL.2010.5702815
- [C43] **L. De Nardis**, D. Domenicali and M.-G. Di Benedetto, "Mobility model for Body Area Networks of soccer players", 2010 European Wireless Technology Conference (EuWIT 2010), September 26 - October 1 2010, Paris, France, pp. 65 - 68.
- [C42] **L. De Nardis**, D. Domenicali and M.-G. Di Benedetto, "Traffic-based, mobility-aware clustering for IEEE 802.15.4a UWB networks", 21st Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2010), September 26 - 29 2010, Istanbul, Turkey, pp. 2002 - 2007. DOI: 10.1109/PIMRC.2010.5671592
- [C41] **L. De Nardis** and M.-D. Perez Guirao, "Mobility-aware design of cognitive radio networks: challenges and opportunities", 5th International Conference on Cognitive Radio Oriented Wireless Networks and Communications (CROWNCOM 2010), June 9 - 11 2010, Cannes, France, pp. 1 - 6.
- [C40] D. Domenicali, **L. De Nardis** and M.-G. Di Benedetto, "UWB Body Area Network Coexistence by Interference Mitigation", IEEE International Conference on UWB 2009 (ICUWB2009), September 9 - 11 2009, Vancouver, Canada, pp. 713 - 717. DOI: 10.1109/ICUWB.2009.5288749
- [C39] **L. De Nardis**, D. Domenicali and M.-G. Di Benedetto, "Clustered Hybrid Energy-aware cooperative Spectrum Sensing (CHESS)", IEEE Cognitive Radio Oriented Wireless Networks and Communications 2009 (CROWNCOM 2009), June 22 - 24 2009, Hannover, Germany, pp. 1 - 6. DOI: 10.1109/CROWNCOM.2009.5189147
- [C38] **L. De Nardis** and M.-G. Di Benedetto, "Cognition in routing for low rate UWB networks", invited paper, IEEE International Conference on UWB 2008 (ICUWB2008), September 10 - 12 2008, Hannover, Germany, Volume 3, pp. 97 - 100. DOI: 10.1109/ICUWB.2008.4653425
- [C37] M.-G. Di Benedetto, **L. De Nardis** and G. Corbellini, "Combining Wireless Optical and UWB for low data rate applications," XXIX General Assembly of the International Union of Radio Science (Union Radio Scientifique Internationale-URSI), August 7 - 16 2008, Chicago, IL, USA.
- [C36] D. Domenicali, **L. De Nardis** and M.-G. Di Benedetto, "UWB Body Area Networks: Coexistence Analysis and Performance Optimization," ICT Mobile Summit, June 10 - 12 2008, Stockholm, Sweden.
- [C35] M.-G. Di Benedetto and **L. De Nardis**, "Cognitive routing models in UWB networks", invited paper, IEEE Third International Conference on Cognitive Radio Oriented Wireless Networks and Communications (CROWNCOM 2008), May 15 - 17 2008, Singapore, pp. 1 - 6.
- [C34] **L. De Nardis**, D. Domenicali and M.-G. Di Benedetto "Performance and energy efficiency of position-based routing in IEEE 802.15.4a low data rate Wireless Personal Data Networks," invited paper, IEEE International Conference on UWB 2007 (ICUWB2007), September 24 - 26 2007, Singapore, pp. 264 - 269.
- [C33] J. M. Rabaey, Y. Chee, D. Chen, **L. De Nardis**, S. Gambini, D. Guermandi, M. Mark and N. Pletcher, "Short Distance Wireless, Dense Networks, and Their Opportunities," 10th EUROMICRO Conference on Digital System Design (DSD 2007), August 29-31 2007, Lubeck, Germany, p.7.
- [C32] M.-G. Di Benedetto and **L. De Nardis**, "MAC design in pulse-based communication systems," 9th International Conference on Transparent Optical Networks, July 1 - 5 2007, Rome, Italy, pp. 242 - 245.

- [C31] D. Domenicali, **L. De Nardis** and M.-G. Di Benedetto, "UWB Network Coexistence and Coordination: a Cognitive Approach," 2007 Annual GTTI Meeting, June 18 - 20 2007, Rome, Italy.
- [C30] F. Barcèlo, M. Ciurana, I. Watt, Y. Evennou, **L. De Nardis** and P. Tomè, "Indoor location for safety applications using wireless networks," 1st eMobility Workshop, 5th International Conference on Wired/Wireless Internet Communications (WWIC 2007), May 23 - 25 2007, Coimbra, Portugal.
- [C29] **L. De Nardis** and M.-G. Di Benedetto, "Performance of location based routing in IEEE 802.15.4a low data rate Wireless Personal Data Networks," European Ultra Wide Band Radio Technology Workshop, May 10 - 11 2007, Grenoble, France.
- [C28] **L. De Nardis** and M.-G. Di Benedetto, "Overview of the IEEE 802.15.4/4a standards for low data rate Wireless Personal Data Networks," 4th Workshop on Positioning, Navigation and Communication 2007 (WPNC'07), March 22 2007, Hannover, Germany, pp. 285 – 289.
- [C27] F. Barcèlo, Y. Evennou, **L. De Nardis** and P. Tomè, "Advances in indoor location," LIAISON-ISHTAR Workshop, September 28 - 29 2006, Athens, Greece.
- [C26] M. Johnson, **L. De Nardis** and K. Ramchandran, "Cooperative Content Distribution for Vehicular Ad Hoc Networks," 44th Annual Allerton Conference on Communication, Control, and Computing, September 27 - 29 2006, Allerton, Illinois, USA.
- [C25] **L. De Nardis** and M.-G. Di Benedetto, "Cognitive routing in UWB networks," invited paper at the IEEE International Conference on UWB 2006 (ICUWB2006), September 24 - 27 2006, Waltham, Massachusetts, USA, pp. 381 – 386.
- [C24] **L. De Nardis** and M.-G. Di Benedetto, "Positioning accuracy in Ultra Wide Band Low Data Rate networks of uncoordinated terminals," IEEE International Conference on UWB 2006 (ICUWB2006), September 24 - 27 2006, Waltham, Massachusetts, USA, pp. 611 – 616.
- [C23] **L. De Nardis** and M.-G. Di Benedetto, "Robustness of Uncoordinated MAC in channel impaired Low Data Rate UWB communications," IST Mobile & Wireless Communications Summit 2006, June 8 – 10 2006, Mykonos, Greece.
- [C22] **L. De Nardis** and M.-G. Di Benedetto, "The Small World Routing Strategy: A methodological framework for driving the emerging topology of energy-constrained multi-hop wireless networks," invited paper, IEEE Radio and Wireless Symposium RWS 2006, January 17 – 19 2006, San Diego, California, USA, pp. 599 – 602.
- [C21] **L. De Nardis**, G. Giancola and M.-G. Di Benedetto, "Performance analysis of uncoordinated Medium Access Control in Low Data Rate UWB networks," 1st IEEE/CreateNet International Workshop on "Ultrawideband Wireless Networking," invited paper, UWBNETS 2005, October 7 2005, Boston, Massachusetts, USA, pp. 206 – 212.
- [C20] **L. De Nardis** and M.-G. Di Benedetto, "Uncoordinated Access to the Wireless Medium for UWB Ad-Hoc Networks," EMC Europe Workshop 2005: Electromagnetic Compatibility of Wireless Systems, September 19 – 21 2005, Rome, Italy.
- [C19] G. Giancola, L. Blazevic, I. Bucaille, **L. De Nardis**, M.-G. Di Benedetto, Y. Durand, G. Froc, B.M. Cuezva, J. Pierrot, P. Pirinen and N. Rinaldi, "UWB MAC and Network Solutions for Low Data Rate with Location and Tracking Applications," IEEE International Conference on UWB, September 5 - 8 2005, Zurich, Switzerland, pp. 758 - 763.
- [C18] R. Cardinali, **L. De Nardis**, P. Lombardo and M.-G. Di Benedetto, "Lower bounds for ranging accuracy with Multi Band OFDM and Direct Sequence UWB signals," to appear in the proceedings of the IEEE International Conference on UWB, September 5 – 8 2005, Zurich, Switzerland, pp. 302 - 307.
- [C17] R. Cardinali, **L. De Nardis**, P. Lombardo and M.-G. Di Benedetto, "UWB Ranging Accuracy for Applications within IEEE 802.15.3a", Second International Workshop on Ultra Wide Band "Networking with UWB," Rome, July 4 – 6 2005, pp. 65 - 69.
- [C16] R. Cardinali, **L. De Nardis**, P. Lombardo and M.-G. Di Benedetto, "Theoretical bounds for ranging with Multi Band OFDM and Direct Sequence UWB signals," IST Mobile & Wireless Communications Summit 2005, June 19 – 23 2005, Dresden, Germany.
- [C15] **L. De Nardis** and M.-G. Di Benedetto, "Joint communication, ranging, and positioning in low data-rate UWB networks," Joint 2nd Workshop on Positioning, Navigation and Communication 2005 (WPNC'05) & 1st Ultra-Wideband Expert Talk (UET'05), March 17 2005, Hannover, Germany, pp. 191 – 200.
- [C14] **L. De Nardis** and M.-G. Di Benedetto, "Joint communications, ranging, and positioning in low bit rate Ultra Wide Band networks," IEEE INFOCOM 2005 Student Workshop, March 14 2005, Miami, Florida, USA.

- [C13] **L. De Nardis**, G. Giancola and M.-G. Di Benedetto, “Power-aware design of MAC and routing for UWB networks,” invited paper, CAMAD’04 Workshop, IEEE Global Communications Conference 2004, November 29 – December 3 2004, Dallas, Texas, USA, pp. 235 – 239.
- [C12] **L. De Nardis**, G. Giancola and M.-G. Di Benedetto, “Power limits fulfilment and MUI reduction based on pulse shaping in UWB,” IEEE International Conference on Communications 2004, June 20 – 24 2004, Paris, France, Volume 6, pp. 3576 – 3580.
- [C11] G. Giancola, **L. De Nardis**, E. Dubuis and M.-G. Di Benedetto, “Dynamic Resource Allocation in Time-Varying Ultra Wide Band Channels,” IEEE International Conference on Communications 2004, June 20 – 24 2004, Paris, France, Volume 6, pp. 3581 – 3585.
- [C10] **L. De Nardis**, G. Giancola and M.-G. Di Benedetto, “A position based routing strategy for UWB networks,” IEEE Conference on Ultra Wideband Systems and Technologies 2003, November 16 – 19 2003, Reston, Virginia, USA, pp. 200 – 204.
- [C9] G. Giancola, **L. De Nardis** and M.-G. Di Benedetto, “Multi User Interference in Power-Unbalanced Ultra Wide Band systems: Analysis and Verification,” IEEE Conference on Ultra Wideband Systems and Technologies 2003, UWBST2003, November 16 – 19 2003, Reston, Virginia, USA, pp. 325 – 329.
- [C8] **L. De Nardis**, G. Giancola, and M.-G. Di Benedetto, “A power-efficient routing metric for UWB wireless mobile networks,” IEEE Vehicular Technology Conference Fall 2003, October 6 – 9 2003, Orlando, Florida, USA, pp. 3105 – 3109.
- [C7] G. Giancola, **L. De Nardis** and M.-G. Di Benedetto, “QoS-Aware Resource Allocation for Slowly Time-Varying Channels,” IEEE Vehicular Technology Conference Fall 2003, October 6 – 9 2003, Orlando, Florida, USA, pp. 1703 – 1707.
- [C6] **L. De Nardis**, G. Giancola and M.-G. Di Benedetto, “Effect of power-efficient routing in UWB wireless mobile networks,” IST Mobile and Wireless Communications Summit 2003, June 15 – 18 2003, Aveiro, Portugal, pp. 498 – 502.
- [C5] G. Giancola, **L. De Nardis** and M.-G. Di Benedetto, “A Unified Approach to Error Protection in Medium Access Control Design,” IST Mobile and Wireless Communications Summit 2003, June 15 – 18 2003, Aveiro, Portugal, pp. 661 – 665.
- [C4] L. Blazevic, I. Bucaille, **L. De Nardis**, M.-G. Di Benedetto, G. Giancola, S. Hethuin, F. Legrand and P. Rouzet, “U.C.A.N.’s ultra wide band system: MAC and routing protocols,” Proceedings of the 2003 International Workshop on Ultra Wideband Systems, IWUWBS 2003, June 2 – 5 2003, Oulu, Finland.
- [C3] **L. De Nardis**, P. Baldi and M.-G. Di Benedetto, “UWB Ad-hoc networks,” IEEE Conference on Ultra Wideband Systems and Technologies 2002, May 20 – 23 2002, Baltimore, Maryland, USA, pp. 219 – 223.
- [C2] M.-S. Iacobucci, M.-G. Di Benedetto and **L. De Nardis**, “Radio Frequency Interference Issues in Impulse Radio Multiple Access Communication Systems,” IEEE Conference on Ultra Wideband Systems and Technologies 2002, May 20 – 23 2002, Baltimore, Maryland, USA, pp. 293 – 296.
- [C1] **L. De Nardis**, M.-G. Di Benedetto and P. Baldi, “UWB Network Organization,” Wireless Design Conference 2002, London, UK, May 15 – 17 2002, pp. 75 – 86.